AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A high-speed image sensor, comprising:

a plurality of signal converters for generating electric signals according to an incident light intensity; ~~and~~

a plurality of longitudinal sections of electric signal storage devices, each of said longitudinal sections comprising a plurality of linearly shaped electric signal ~~recorders~~ storage devices for storing electric signals output from corresponding signal converters;

a plurality of drain gates, each provided at the output of one of said longitudinal sections, each drain gate for discharging electric signals generated by an associated signal converter to a drain line connected to each said drain gate; and

a read-out circuit connected to said drain line for directly reading-out a read-out signal from said longitudinal sections

~~wherein~~

~~each of said electric signal recorders is linear shaped and provided with a read-out line for each of longitudinal sections of the electric signal recorders, the read-out line being used for directly reading the electric signals out of said longitudinal sections of the electric signal recorders forming a light receptive area~~.

2. (Canceled).

3. (Previously Presented) The high-speed image sensor of claim 1, further comprising connectors for directly connecting said signal converters with the read-out lines without passing through said electric signal recorders.

4. (Canceled).

5. (Previously Presented) The high-speed image sensor of claim 1, wherein each said electric signal recorder is a charge coupled device type electric signal recorder.

6. (Previously Presented) The high-speed image sensor of claim 1, wherein each said electric signal recorder is a MOS type electric signal recorder.

7. (Previously Presented) The high-speed image sensor of claim 1, wherein each of said signal converters is divided into a plurality of portions insulated from each other.

8. (Currently Amended) The high-speed image sensor of claim 6, wherein each of said signal converters is divided into a plurality of portions insulated from each other and wherein amplifiers for amplifying the electric signals are interposed between said plurality of divided portions and said electric signal recorders.

9-11. (Canceled).

12. (Currently Amended) A high-speed image sensor, comprising:

a plurality of signal converters for generating electric signals according to an intensity of electromagnetic waves or particle streams~~,~~; and

a plurality of longitudinal sections of linear shaped electric signal storage devices, each of said longitudinal sections comprising a plurality of said electric signal ~~recorders~~ storage devices for storing electric signals output from corresponding signal converters~~,~~;

a plurality of drain gates, each said drain gate connected to the output of one longitudinal section, for discharging electric signals generated by said signal converters;

a drain line connected to said drain gates, wherein a read-out signal is directly read-out from said longitudinal sections using said drain line

~~wherein said electric signal recorders are linear shaped and provided with a read-out line for each of longitudinal sections thereof, the read-out line being used for directly reading out the electric signals out of a light receptive area~~.

13. (Previously Presented) The high-speed image sensor of claim 12, wherein each said electric signal recorder is a charge coupled device type electric signal recorder.

14. (Previously Presented) The high-speed image sensor of claim 12, wherein each said electric signal recorder is a MOS type electric signal recorder.

15. (Previously Presented) The high-speed image sensor of claim 12, wherein each of said signal converters is divided into a plurality of portions insulated from each other.

16. (Previously Presented) The high-speed image sensor of claim 14, wherein each of said signal converters is divided into a plurality of portions insulated from each other and wherein amplifiers for amplifying the electric signals are interposed between said plurality of divided portions and said electric signal recorders.

17. (Previously Presented) The high-speed image sensor of claim 12, further comprising a cuttable band-shaped space which continuously extends from one side to another side of the light receptive area.

18. (Previously Presented) A high-speed image sensor comprising a plurality of signal converters for generating electric signals according to an incident light intensity and a plurality of electric signal recorders for storing electric signals output from corresponding signal converters,

wherein said signal converters are disposed in all of, or every other, square or rectangular frames on a light receptive area; and

wherein a center line of each said electric signal recorder, in a direction from one position where electric signals are input from a signal converter to another position where electric signals are input from an adjacent signal converter, is inclined with respect to a line connecting two positions where electric signals are input from two of said signal

converters, adjacent to each other in an extension direction of said electric signal recorders, to corresponding electric signal recorders.

19. (Previously Presented) The high-speed image sensor of claim 18, wherein each said electric signal recorder is a charge coupled device type electric signal recorder.

20. (Previously Presented) The high-speed image sensor of claim 18, wherein each said electric signal recorder is a MOS type electric signal recorder.

21. (Previously Presented) The high-speed image sensor of claim 18, wherein each of said signal converters is divided into a plurality of portions insulated from each other.

22. (Previously Presented) The high-speed image sensor of claim 20, wherein each of said signal converters is divided into a plurality of portions insulated from each other and wherein amplifiers for amplifying the electric signals are interposed between said plurality of divided portions and said electric signal recorders.

23. (Previously Presented) The high-speed image sensor of claim 18, further comprising a cuttable band-shaped space which continuously extends from one side to another side of the light receptive area.

24. (Canceled)

25. (Previously Presented) An image sensing apparatus comprising said high-speed image sensor claimed in claim 1.

26. (Previously Presented) An image sensing apparatus comprising said high-speed image sensor claimed in claim 12.

27. (Previously Presented) An image sensing apparatus comprising said high-speed image sensor claimed in claim 18.

28. (Canceled)

29. (New) A high-speed image sensor, comprising:

a plurality of signal converters for generating electric signals according to an incident light intensity;

a plurality of longitudinal sections of electric signal storage devices, each of said longitudinal sections comprising a plurality of electric signal storage devices for storing electric signals output from corresponding signal converters;

a plurality of drain lines, each provided at the output of one of said longitudinal sections, for discharging electric signals generated by said plurality of signal converters; and

a read-out circuit connected to said drain lines for directly reading-out a read-out signal from said longitudinal sections.

30. (New) A high-speed image sensor, comprising:

a plurality of signal converters for generating electric signals according to an intensity of electromagnetic waves or particle streams; and

a plurality of longitudinal sections of electric signal storage devices, each of said longitudinal sections comprising a plurality of said electric

signal storage devices for storing electric signals output from corresponding signal converters;

a drain line connected to the output of each said longitudinal section for discharging electric signals generated by said signal converters,

wherein a read-out signal is directly read-out from said longitudinal sections using said drain line.